

REMARKS

Claims 1-4, 7-10, 13 and 14 have been rejected under 35 U.S.C. § 103(a) as obvious over Frantz et al. U.S. Patent No. 5,794,627 in view of Adell U.S. Patent No. 5,406,963. Applicant respectfully traverses this rejection for the following reasons.

Frantz et al. is cited as showing a device for use in a patient's mouth in which a tray or trays are used to place an impression material in contact with the user's teeth to form an impression. The material in contact with the teeth is a putty rope 20. Frantz et al. is designed to be used once and then be discarded. One cannot imagine a hockey player getting a new mouthguard after every impact.

Adell discloses a two component tray in which the first component is molded or otherwise formed with holes, and then a second component is subsequently molded such that the second component passes through the holes to form a mechanical bonding of the components together. The main body, 10, supports and encloses the liner 12, which liner 12 is in contact with the teeth. Liner 12 is in both trough 16 and trough 18. Thus it can be said that the component that provides protection in Adell is liner 12, which is conformable to the teeth. In fact, liner 12 may or may not soften sufficiently to conform to the user's teeth, though it does in the preferred embodiment.

In contrast, Applicant has claimed a device that is directly opposite to the cited art. This point cannot be over emphasized. Rather than an inner tray that conforms to the teeth of the user, Applicant recites an inner tray of a gel that cushions the teeth but does not conform upon heating. Frantz et al has putty that conforms to the patient's teeth but does not cushion. Adell has liner 12 that conforms to the teeth and does not cushion the teeth upon impact. Neither reference, alone or in combination, has an inner portion that functions as a cushion. To modify both references to obtain an element that is not taught in either is improper.

Contrary to the cited art, the gel of the present invention does not soften to allow an impression to be made. The inner portion of the

claimed invention has a memory such that it returns to undeformed form when pressure is removed. Thus, in use, the inner tray is a cushion that returns to a cushion form between blows. This is totally opposite to the cited art.

Similarly, Applicant has claimed a device in which the outer tray does conform to the user's mouth and gums, so that it is personalized and fits tightly in the mouth. In contrast again, Frantz et al. has an outer tray that does not conform. Adell's outer tray is a plastic material that does not deform upon heating and is hard. This lack of a conformable outer tray in both references thus also leads one skilled in the art away from the invention completely.

Reconsideration of the rejection and withdrawal of the references is respectfully requested because the two components of the present invention function in direct opposition to the same components of the cited art. There is no hint of a suggestion that one would contravene the teachings of Frantz et al. or Adell to do the opposite of what is taught.

Only Applicant has made a mouthguard that repeatedly cushions the teeth by presenting a gel that is not formed into an impression of the user's teeth and that has an outer component that (1) holds the cushioning gel against the teeth and (2) itself is conformed by heating to the user's mouth for a more precise fit and careful positioning of the cushioning gel.

Claims 5, 6, 11, and 12 have been rejected under 35 U.S.C. § 103(a) as obvious over Frantz et al. and Adell, further in view of Ueno U.S. Patent No. 5,513,984. Ueno is said to disclose a styrene block copolymer, which is a gel. As understood, the rejection is that the ball members 3, which is explicitly stated to be "made of a material which cannot be deformed by subjecting occlusion pressure," as noted in the abstract and elsewhere. The balls are made from a variety of materials, one of which being a styrene block copolymer, but in all cases much be what the patents calls them to be, namely a material which cannot be deformed when used. That is no cushion.

These balls of Ueno, which are hard and do not compress or act as a cushion, are to be substituted in Frantz et al. for the putty, which also does not act as a cushion or the impression material of Adell

which also does not act as a cushion. This combination would cause injury to the user of a mouthguard with hard material in contact with the teeth. The concept of gel cushioning and outer tray conformation to the user is directly contrary to the teachings of this reference and to all of the references.

In summary, it is respectfully submitted that none of the references have an outer tray, which does not directly contact the user's teeth, that does conform when heated to give a better fit, and none of the references have an inner tray that does not conform to the teeth but instead cushions the teeth on impact. Both claimed elements are the direct opposite in the cited art.

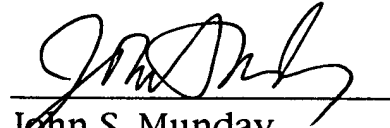
Once again, the Examiner is respectfully urged to reconsider the rejection and allow the claims. If the Examiner considers this case ready for conclusion other than by allowance, it is respectfully requested that the Examiner call Applicant's attorney at the number listed below. Favorable consideration is earnestly urged.

DATE: 1/20/05

Respectfully submitted  
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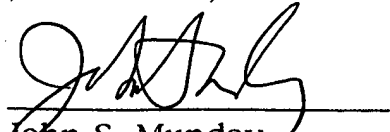
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CERTIFICATE OF MAILING

I hereby certify that the attached correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: mail station amendment non fee, Commissioner for Patents, PO Box 1450, Alexandria, VA, 22313-1450, on the date appearing below.

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